

## 4.462 SYLLABUS

**PROF. JOHN OCHSENDORF (JAO@MIT.EDU)**

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**MAKING TA: AISHA CHEEMA (AISHAC@MIT.EDU)**

**OFFICE HOURS: BY APPOINTMENT**

**LEC: MW 9:30-11:00 AM, ROOM 3-333**

**LAB: W 5:00 PM - 7:00 PM, ROOM 8-205**

	<b>DATE</b>	<b>SUBJECT</b>
FEBRUARY	Mon 3	Introduction
	Wed 5	Compression structures
	Wed 5	LAB: Cables and arches
	Mon 10	Tension structures
	Wed 12	Designing for axial forces (Equilibrium HW due)
	Wed 12	LAB: Buckling and column project
	Mon 17	No Class: Presidents Day
	Tues 18	Truss design (Monday schedule)
	Wed 19	Forces and forms in beams
	Wed 19	LAB: Truss design/column project
	Mon 24	Beam design (Truss HW due)
MARCH	Wed 26	Forces and forms in frames
	Wed 26	LAB: Column testing (Built column due)
	Mon 3	Frame design
	Wed 5	Structural failures
	Wed 5	LAB: Beams and frames (Column report due)
	Mon 10	Stability and indeterminacy
	Wed 12	Indeterminate beams and frames (Beam HW due)
	Wed 12	LAB: Review
Mon 17	Mid Presentations	
Wed 19	Mid Presentations	

	<b>DATE</b>	<b>SUBJECT</b>
MARCH	Wed 19	LAB: Beam project
	M-F 24-28	SPRING BREAK
	Mon 31	Indeterminate frames
APRIL	Wed 2	Lateral load systems
	Wed 2	LAB: Beam testing (built beam due)
	Mon 7	Final project overview
	Wed 9	Structural computation by Prof. Caitlin Mueller
	Wed 9	LAB: Design project (beam report due)
	Mon 14	Reinforced concrete design
	Wed 16	Steel and timber design
	Wed 16	LAB: Design project
	Mon 21	No class: Patriot's Day
	Wed 23	Sustainable materials
	Wed 23	LAB: Design project (Project proposal due)
	Mon 28	Sustainable structures
MAY	Wed 30	Designing for the unexpected
	Wed 30	LAB: Final project (Project preliminary calculations due)
	Mon 5	Design for strength and serviceability
	Wed 7	Course overview
	Wed 7	LAB: Final project
	Mon 12	Pinup for Fri Lab

Final grades will be calculated as follows:

Participation	5% (reduced for more than 3 unexcused absences)
Homework	20%
Lab reports	30%
Mid Project	15%
Final Project	30%

Required Text:

Allen, E. and Zalewski, W., *Form and Forces* (Wiley, 2009)